

CLAIMS

1. Use of a substance selected from the group consisting of human apo-lactoferrin and/or peptides derivable from human lactoferrin and/or natural  
5 metabolites of human lactoferrin and/or functionally equivalent analogues of human apo-lactoferrin for the production of a pharmaceutical composition for treatment and/or prevention of a vascular disease and/or states of tissue hypoperfusion with hypoxic and/or ischemic consequences.
2. Use according to claim 1, wherein said pharmaceutical composition is  
10 intended for use as an alternative to bypass surgery or any therapeutic angiogenesis options.
3. Use according to claim 1 or 2, wherein said substance is human apo-lactoferrin.
4. Use according to claim 1 or 2, wherein said substance is human  
15 lactoferricin.
5. Use according to claim 1 or 2, wherein said substance is a peptide constituted of all or some of the amino acids 12-40 of human lactoferrin counted from the N-terminal end, or a modified version thereof.
6. Use according to claim 1 or 2, wherein said substance is a peptide formed  
20 of the sequences constituted of amino acids 16-40 and amino acids 18-40 from the N-terminal end of human lactoferrin, or a modified version thereof.
7. Use according to claim 1 or 2, wherein said substance is a peptide essentially corresponding to residues 18-31 of human lactoferrin wherein C-20 is replaced by A, Q-22 is replaced by K, and N-26 is replaced by D.
- 25 8. Use according to claim 1 or 2, wherein said substance is a peptide formed of the amino acids in positions 12-31, counted from the N-terminal end, in the sequence constituting human lactoferrin, or a modification thereof, or a fragment thereof consisting of at least 7 amino acids.
9. Use according to claim 1 or 2, wherein said substance is a peptide  
30 consisting of 11-17 amino acids corresponding to the sequences that begin with one of the amino acids in positions 15-21 and end with the amino acid in position 31,

counted from the N-terminal end, in the sequence constituting human lactoferrin, or a modification thereof.

10. Use according to claim 1 or 2, wherein said substance is a peptide consisting of 12 amino acids based on the sequence consisting of the amino acids in  
5 positions 20-31 in human lactoferrin, counted from the N-terminal end.

11. Use according to any one of the claims 1-10, wherein said vascular disease or states of tissue hypoperfusion is impending or manifested stroke, ischemic heart disease such as angina pectoris or impending or manifested myocardial infarction, or peripheral artery occlusive disease with or without impending gangrene.

10 12. Use according to any one of the claims 1-10, wherein said vascular disease or states of tissue hypoperfusion and/or state of depressed VEGF induced angiogenesis is associated with peptic ulcer, leg ulcer or local or generalised hair loss.

13. Use according to any one of the claims 1-12, wherein said pharmaceutical composition is formulated for per oral administration.

15 14. Use according to any one of the claims 1-12, wherein said pharmaceutical composition is formulated for parenteral administration.

15. Use according to any one of the claims 1-12, wherein said pharmaceutical composition is formulated for local administration.

20 16. Use according to any one of the claims 1-12, wherein said pharmaceutical composition is formulated for administration by inhalation.

17. A method for treatment or prevention of a vascular disease or states of tissue hypoperfusion with hypoxic or ischemic consequences wherein a therapeutically effective amount of a substance selected from the group consisting of human apo-lactoferrin and peptides derivable from human lactoferrin and natural  
25 metabolites of human lactoferrin and functionally equivalent analogues of human apo-lactoferrin is administered to a patient in need of said treatment.

18. The method according to claim 17, wherein said method is used in as an alternative to bypass surgery or any therapeutic angiogenesis options.

30 19. The method according to claim 17, wherein said substance is human apo-lactoferrin.

20. The method according to claim 17, wherein said substance is human lactoferricin.

21. The method according to claim 17, wherein said substance is a peptide constituted of all or some of the amino acids 12-40 of human lactoferrin counted from the N-terminal end, or a modified version thereof.

5 22. The method according to claim 17, wherein said substance is a peptide formed of the sequences constituted of amino acids 16-40 and amino acids 18-40 from the N-terminal end of human lactoferrin, or a modified version thereof.

23. The method according to claim 17, wherein said substance is a peptide essentially corresponding to residues 18-31 of human lactoferrin wherein C-20 is replaced by A, Q-22 is replaced by K, and N-26 is replaced by D.

10 24. The method according to claim 17, wherein said substance is a peptide formed of the amino acids in positions 12-31, counted from the N-terminal end, in the sequence constituting human lactoferrin, or a modification thereof, or a fragment thereof consisting of at least 7 amino acids.

15 25. The method according to claim 17, wherein said substance is a peptide consisting of 11-17 amino acids corresponding to the sequences that begin with one of the amino acids in positions 15-21 and end with the amino acid in position 31, counted from the N-terminal end, in the sequence constituting human lactoferrin, or a modification thereof.

20 26. The method according to claim 17, wherein said substance is a peptide consisting of 12 amino acids based on the sequence consisting of the amino acids in positions 20-31 in human lactoferrin, counted from the N-terminal end.

25 27. The method according to claim 17, wherein said vascular disease or states of tissue hypoperfusion are selected from the group consisting of impending stroke, manifested stroke, ischemic heart disease such as angina pectoris or impending or manifested myocardial infarction, and peripheral artery occlusive disease with or without impending gangrene.

28. The method according to claim 17, wherein said vascular disease or state of tissue hypoperfusion and/or state of depressed VEGF induced angiogenesis is associated with peptic ulcer, leg ulcer or local or generalised hair loss.

30 29. The method according to claim 17, wherein said substance is administered orally.

30. The method according to claim 17, wherein said substance is administered parenterally.

31. The method according to claim 17, wherein said substance is administered locally.

5        32. The method according to claim 17, wherein said substance is administered by inhalation.